

List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 13 (Cancelled).

14. (New) A device for determining and/or monitoring volume, and/or mass, flow of a medium to be measured, flowing through a pipeline in a stream direction (S), comprising:

at least one ultrasonic sensor, for radiating ultrasonic measuring signals into, and receiving ultrasonic measuring signals from, the pipeline; and

a control/evaluation unit, which determines volume, and/or mass, flow of a medium being measured in the pipeline on the basis of the travel time difference of the ultrasonic measuring signals in, and counter to, the stream direction (S) or on the basis of the Doppler shift of the ultrasonic measuring signals, wherein:

said ultrasonic sensor has a cup-shape and includes a housing and an oscillatable unit for producing the ultrasonic signals;

said oscillatable unit is composed of a plurality of components; and

is so embodied that it has a node plane arranged essentially perpendicularly to the radiating or receiving direction of the ultrasonic measuring signals; and

at least a portion of an outer surface of said oscillatable unit is connected with said housing in the region of the node plane of said oscillatable unit.

15. (New) The device as claimed in claim 14, wherein:

the node plane is a plane of symmetry of said oscillatable unit.

16. (New) The device as claimed in claim 14, further comprising:

a ring-shaped membrane, or diaphragm, provided in the region of the node plane or the plane of symmetry of said oscillatable unit, via which membrane, or diaphragm, the oscillatable unit is connected with said housing.

17. (New) The device as claimed in claim 15, wherein:
said oscillatable unit includes at least one disc-shaped piezoelectric element or elements, a roof element and a floor element;
said piezoelectric element, or elements, is/are arranged symmetrically to the plane of symmetry; and
said roof element and the floor element are arranged symmetrically on both sides of said piezoelectric element, or elements.

18. (New) The device as claimed in claim 17, wherein:
said piezoelectric element has a first delimiting surface and a second delimiting surface;
said floor element is provided parallel to said first delimiting surface; and
said roof element is provided parallel to said second delimiting surface.

19. (New) The device as claimed in claim 18, wherein:
in a predetermined region of said two delimiting surfaces, electrodes are provided, via which said piezoelectric element or elements, respectively said oscillatable unit, is excited to oscillate.

20. (New) The device as claimed in claim 17, wherein:
between said electrode on said first delimiting surface and said floor element and said electrode on said second delimiting surface and said roof element, in each case, a dielectric insulating layer is provided.

21. (New) The device as claimed in claim 17, wherein:
in an edge region of said oscillatable unit, a ring-shaped chamber is provided.

22. (New) The device as claimed in claim 17, further comprises:
a housing chamber located above said roof element, wherein:
a potting compound is provided in said housing chamber.

23. (New) The device as claimed in claim 22, wherein:
the potting compound is a silicone potting compound.

24. (New) The device as claimed in claim 14, wherein:
said oscillatable unit is so embodied that it is adaptable to different media to be measured.

25. (New) The device as claimed in claim 24, wherein:
said roof element is exchangeable; and
said element comprises roof elements of different thicknesses and/or different densities, which are exchangeable as a function of the particular medium to be measured and which are intergratable into said oscillatable unit.

26. (New) The device as claimed in claim 22, wherein:
exchangeable fill media of different densities are provided, which are arrangeable in said housing chamber above said roof element as a function of the particular medium to be measured.